ABSTRACT

The heat radiation from a glass to the space inside can be prevented by adding 0.001 to 10% by weight of a silane coupling agent represented by the following general formula (I) (wherein X is a group reactive or compatible with organic materials. R_1 , R_2 , and R_3 are, each independently, OH or a group capable of generating a silanol upon hydrolysis and they may be same or different each other) to deionized water having a total anion content of 700 mgCaCO₃/L or lower to prepare a water-based heat-radiation-preventive coating material for glasses, by applying said coating material on one side of a glass substrate to form a heat-radiation-preventive coating film and by disposing the coated glass substrate so that the coating film side faces the space inside. Therefore, the present invention provides a water-based heat-radiation-preventive coating material for glasses which enables a heat-radiation-preventive coating film excellent in adhesion to glasses and in durability to be evenly and easily formed, a heat-radiation-preventive glass having such coating film and a method of preventing heat radiation from a glass.

$$\begin{array}{ccc}
OR_1 \\
\vdots \\
X-S_{i}-OR_2 \\
OR_2
\end{array}$$